Abstract: The centers of all massive galaxies contain supermassive black holes weighing millions to tens of billions times the mass of the Sun. Recent observations reveal that even a significant fraction of low-mass galaxies contain intermediate-mass black holes, which give new insights into the birth of supermassive black holes and offer predictions for the next generation of gravitational wave experiments. Accretion of matter by central black holes power quasars and various types of active galactic nuclei. The energy and momentum released by accretion, in turn, may strongly influence the evolution of galaxies. I will summarize the critical observations over the past 30 years that have led to the discovery of the widespread existence of black holes in galaxies, which is among one of the most important developments in modern astrophysics.

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